

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

NYOS® CALCIUM REEFER

Date of issue: 11.05.2021

Version: 1.03

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: NYOS® CALCIUM REEFER

Aquarium test kit for analytical use.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Product for analytical use.

Uses advised against:

None known

1.3 Details of the supplier of the safety data sheet:

Nyos Aquatics GmbH
Daimlerstraße 27
70825 Korntal-Münchingen / GERMANY
Phone +49 (0) 711-50875454
Fax +49 (0) 711-50875494
Email: info@nyos.info

Address enquiries to

Technical information: info@nyos.info

Safety Data Sheet: info@nyos.info

1.4 EMERGENCY TELEPHONE NUMBER:

DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.

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2. Hazards identification

2.0 Classification of the complete product

Directive 1999/45/EC

Symbols



C

R

R 35

CLP Directive 1272/2008/EC

GHS pictograms



GHS05

Signal word

DANGER

Hazard identification	Hazard classes/categories
-----------------------	---------------------------

H314

Skin Corrosion 1A. Serious Damage to Eyes 1

2.1 Classification of the substance or mixture

25ml CA-1 (Soda lye 10 %)

Directive 1999/45/EC
Symbols



C

R 35

CLP Directive 1272/2008/EC
GHS pictograms



GHS05

Signal word

DANGER

Hazard identification	Hazard classes/categories
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H314

Skin Corrosion 1A. Serious Damage to Eyes 1

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5g CA-2

Directive 1999/45/EC

Symbols

-
do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms
Signal word

do not need labelling as hazardous
-

No hazard class

50ml CA-3

Directive 1999/45/EC

Symbols

-
do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms
Signal word

do not need labelling as hazardous
-

No hazard class

2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 ml | g** .

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier.
Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases **until 125 ml or 125 g** (EU 1272/2008 Annex I - 1.5.2).

25 ml CA-1 (Soda lye 10 %)

Directive 1999/45/EC

Symbols:



C

R 35
Causes severe burns.

S 26-37/39
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable gloves and eye/face protection.

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CLP Directive 1272/2008/EC
GHS pictograms:



GHS05

Signal word: DANGER

H314
Causes severe skin burns and eye damage.

P260D, P280sh, P301+330+331, P303+361+353, P304+340, P305+351+338, P501
Do not breathe vapours. Wear protective gloves/eye protection. IF SWALLOWED: Rinse mouth.
Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/container to regulated waste treatment.

5g CA-2

Directive 1999/45/EC
Symbols:

-
-

CLP Directive 1272/2008/EC
GHS pictograms:
do not need labelling as hazardous
Signal word: -

50ml CA-3

Directive 1999/45/EC
Symbols:

-
-

CLP Directive 1272/2008/EC
GHS pictograms:
do not need labelling as hazardous
Signal word: -

2.3 Other hazards

Possible Hazards from physicochemical Properties

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant.

Information pertaining to particular Risks to Human and possible Symptoms

Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time. Vapours especially which steam from hot liquids and mist can have a severe irritant effect upon the eyes and the respiratory organs.

Information pertaining to particular Risks to the Environment

--- Avoid contact of substance/mixture to environment. ---

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3. Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

25ml CA-1 (Soda lye 10 %)

Chemical:	<i>sodium hydroxide solution</i>	CAS No.:	1310-73-2
Concentration:	5 - 20 %		
Formula:	NaOH•H 2 O		
Pseudonym:	<i>soda lye</i>		
REACH Reg. No.:	01-2119457892-27-xxxx		
EC No.:	215-185-5	Indice No.:	011-002-00-6
RTECS:	WB4900000		
TSCA Inventory:	listed		
KE No.:	KE-31487		
acc. 1999/45/EC:	R 35 acc.	CLP (GHS):	H314

5g CA-2

Chemical:	<i>calconcarboxylic acid</i>	CAS No.:	3737-95-9
Concentration:	< 1,00 %		
Formula:	C 21 H 14 N 2 O 7 S* 2H 2 O		
Pseudonym:	Patton and Reeder's reagent: 2-Hydroxy-1-(2-hydroxy-4-sulfo-1-naphthylazo)-3-naphthoic acid		
EC No.:	223-117-0	MFCD:	00004078
TSCA Inventory:	listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

50ml CA-3

Chemical:	<i>ethyldinitrilo tetraacetic acid, di Na-salt (EDTA-Na)</i>	CAS No.:	6381-92-6
Concentration:	< 1,00 %		
Formula:	C 10 H 14 N 2 Na 2 O 8 •2 H 2 O		
EC No.:	205-358-3		
RTECS:	AH4410000; AH4375000	MFCD:	00150037
TSCA Inventory:	not listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

3.3 Remarks

List of R and H phrases: see chapter 16

4. First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor.

Following inhalation:

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. If vomiting and if insensible place patient in recovery position and keep airways free.

Following skin contact:

Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.

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Following eye contact:

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

Following ingestion:

After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. Contact medical advice for possible consequences.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

CORROSIVE DAMAGE: After SKIN CONTACT rinse with water for a long time. Efforts to neutralise the substance can frequently make matters worse. Apply glucocorticosteroides following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must to be carried out by an eye specialist. After INTAKE administer aluminium oxide drug suspensions. Administer a prophylaxis to counter pulmonary oedema following the INGESTION of corrosive aerosols. In the event of RESPIRATORY DISTRESSES ensure that the patient inhales oxygen.

5. Firefighting measures

5.1 Extinguishing media:

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

5.2 Special hazards arising from the substance or mixture

Formation of hazardous and caustic vapour-air mixtures possible. Danger for environment only in the event of a large-scale leakage or formation of hazardous substances.

5.3 Advice for fire-fighters

No, for listed product. Product package burns like paper or plastic.

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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection, respectively face protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

6.2 Environmental precautions:

none

6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.

6.4 Reference to other sections

none

7. Handling and storage

7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of NYOS® allows a safe storage.

Storage class (German chemical industry): see SECTION 12.1

Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

8. Exposure controls/personal protection

8.1 Control parameters

25ml CA-1

Chemical: *sodium hydroxide solution*

TRGS 900 (DE): (2 E) mg/m³

E / e respirable

Short-term exposure factor: =1=

CAS No.: 1310-73-2

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

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SUVA(CH) MAK value:	2 e mg/m ³	Canada CEPA 1999:	DSL Yes
Australia NICNAS:	not listed	Japan ISHL:	Article 57-2 (SDS required)
Japan CSCL/PRTR:	not listed	California Proposition 65 List:	not listed
Japan PDSCL:	not listed		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-31487		
TSCA Inventory:	listed		
NIOSH:	2 mg/m ³		
OSHA:	TWA 2 mg/m ³		

5g CA-2

Chemical: *calconcarboxylic acid* CAS No.: 3737-95-9
TSCA Inventory: not listed

50ml CA-3

Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS No.: 6381-92-6
TSCA Inventory: not listed

8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

Respiratory Protection:

Only if additional recommendations in test instruction or packing insert.

Eye protection:

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

Hand protection:

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

Skin protection:

Recommended to avoid clothing damage, and to avoid contamination with these hazards.

Personal Hygiene:

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

25ml CA-1 (Soda lye 10 %)

Appearance: liquid	Color: colourless	Odor: odorless
pH: 14		
Specific gravity: 1,11 g/cm ³		
Solubility in water: 0-100 %		

5g CA-2

Appearance: off white powder	Color: colored	Odor: odorless
pH: not determined		
Flammability: Powder is non-combustible		

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Solubility (water):	Completely soluble to give a neutral solution
Boiling point:	not determined

50ml CA-3

Appearance: liquid

Color: colourless

Odor: odorless

pH:

9-10

Specific gravity:

1,0 g/cm³

Solubility in water:

0-100 %

9.2 Other information:

Relevant Properties of Substance Group

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Not necessary. When indicated in packing insert.

10.5 Incompatible materials:

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products:

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

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11. Toxicological information

11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

25ml CA-1 (Soda lye 10 %)

Chemical:	<i>sodium hydroxide solution</i>	CAS No.: 1310-73-2
LD50 orl rat:	500 _{100%} mg/kg	
LD50 orl mus:	40 mg/kg	

5g CA-2

Chemical:	<i>calconcarboxylic acid</i>	CAS No.: 3737-95-9
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50ml CA-3

Chemical:	<i>ethylenedinitrilo tetraacetic acid, di Na-salt (EDTA-Na)</i>	CAS No.: 6381-92-6
LD50 orl rat:	>2000 mg/kg	

12. Ecological information

12.1 Toxicity:

25ml CA-1 (Soda lye 10 %)

Chemical:	<i>sodium hydroxide solution</i>	CAS No.: 1310-73-2
LC50 leuciscus idus/96h :	35-189 mg/L	
LC50 fish/96h :	45.4 mg/L	
EC50 daphnia/48h :	>100 mg/L	
WGK (DE):	1	WGK No.: 0142
Storage class (VCI):	8 B	

5g CA-2

Chemical:	<i>calconcarboxylic acid</i>	CAS No.: 3737-95-9
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50ml CA-3

Chemical:	<i>ethylenedinitrilo tetraacetic acid, di Na-salt (EDTA-Na)</i>	CAS No.: 6381-92-6
WGK (DE):	2	
Storage class (VCI):	12-13	

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

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12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects:

no data available

13. Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains. Empty containers of corrosive reagents prior to disposal, rinse with water.

14. Transport information

Not necessary

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011 Announcement BekGS 220 (DE), Safety Data Sheet, June 2013

15.2 Chemical Safety Assessment:

not necessary for these small amounts

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16. Other information

16.1 List of R and H phrases

16.1.1. List of relevant R phrases

none

16.1.2 List of relevant H phrases

H314 Causes severe skin burns and eye damage.

16.2 Training Advice

Regular safety training.

16.3 Recommended Restriction on Use

An individual package of this product or test kit has a moderate hazardous potential.

16.4 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4 th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated February 2014
SUVA .CH, Limits in air at work 2009, revised on 01.2009
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)
